

EURAB 07.010

**EUROPEAN RESEARCH ADVISORY BOARD
FINAL REPORT**

**Energising Europe's Knowledge
Triangle of Research, Education and
Innovation through the Structural
Funds.**

April 2007

"Our society, our economy, is changing. We cannot compete as a knowledge economy without new, improved knowledge."

Janez Potočnik, EU Commissioner for Research, 27th February 2007

"I would like to see all Member States and regions dedicating a substantial share of their Structural Fund, particularly their ERDF, resources to research and innovation"

Danuta Hübner, EU Commissioner for Regional Policy, 17th October 2005

Recommendations

EURAB strongly supports and welcomes the joint effort of the Commission to push forward the Research, Education and Innovation (REI) dimension of the renewed Lisbon strategy, especially at the regional level. As the Commission advisory body for Research we declare our willingness to help and contribute our knowledge on these matters, beyond the issues related to the Framework Programme.

The recommendations:

1. Taking into account both the magnitude and the mission of the Structural Fund programmes, EURAB urges both the Commission and the Member States, especially those being the largest beneficiaries, to take a strategic approach to the streamlined use of the Programmes to leverage development of regional research, innovation and higher education capacity.
2. That incentives are adopted to encourage a greater take-up of research and innovation activity through the Structural Funds – such as differential grant rates or the establishment of awards for regions that demonstrate investment in research and innovation through the Structural Funds.
3. EURAB strongly supports the recommendation of the Aho Report¹ that a significant portion of the Structural Funds, of the order of the suggested 20%, for investment in research and innovation measures be mandatory, and that this condition becomes a part of the Community Strategy in the implementation process of the Lisbon Strategy in Europe.
4. We recommend that there is recognition given to the role of research-led clusters and the wider research and innovation ‘eco-system’- which determines the level, and efficiency, of research and innovation activity. We further recommend that each Operational Programme should give explicit consideration to research infrastructure, talent, research activity, commercialisation activities and developing international connections, in order to stimulate levels of research and innovation in the regions of Europe.

¹ Creating an Innovative Europe, January 2006

5. In addition we recommend that strong consideration is given to the potential of adopting a lower (say 10% compared to the normal 50% or 25%) contribution of the national / regional recipient in order to reflect the perceived risks and long-term return associated with many research, innovation and education activities, especially those requiring the creation of a new infrastructure.
6. That incentives are developed, through the Structural Funds, to encourage the use of the new financial instruments available from the European Investment Bank to promote the use of loan-vehicles for research and innovation, particularly in those regions eligible for Convergence funding. An example of such an incentive could be partial or even total coverage of the interest payments on REI infrastructure - dedicated loans from the Programme, for the most visionary and breakthrough programmes.
7. That actions supported through the Capacities Strand of the 7th Framework Programme should inform the development or delivery of actions through the relevant Structural Fund programme of the participating regions and that Structural Fund programmes might, in turn, lay the foundations for future participation in the EU's Framework Programmes.
8. That a dedicated platform is established by a joint action of all DGs involved in the implementation of the REI-related part of the Lisbon strategy to develop and spread best practice on the use of Structural Fund programme expenditure to stimulate the regional economic benefits of research and innovation, particularly in overcoming existing disparities across the EU.
9. That the EU services make use of all the powers available to them through the negotiating procedures and regulatory provisions to emphasise the importance of research and innovation in stimulating regional economic development, and to reduce administrative burdens wherever possible, to encourage the engagement of the public and private sectors.

1. Introduction.

The renewed Lisbon agenda aims to turn Europe into a modern, dynamic, outward-looking knowledge economy. It acknowledges that this is the most effective means of delivering the economic growth and jobs required across Europe. Research, Education and Innovation (REI) – Europe's knowledge triangle - lie at the heart of achieving these goals.

The value of the knowledge triangle has been highlighted in the work of the Expert Group on R&D and innovation appointed following the Hampton Court Summit². The substantial increase in funds available to the 7th Framework Programme, the incorporation of new approaches into the programme and the establishment of a European Research Council further recognises the role research, innovation and education can play in achieving the ambitions of the renewed Lisbon agenda. Previous reports by EURAB have also emphasised the means of realising the economic benefits of increasing investments and enhancing the synergy in the knowledge triangle.

To achieve the ambitions of the renewed Lisbon agenda will require firms and institutions in Europe's regions to become more active in research and innovation and to overcome the strong disparities that currently exist between Member States and regions. Not all regions have the same level of capacity to undertake research and innovation, impeding their long-term growth prospects and contributing to disparities in prosperity across the EU. The European Structural Funds are the key European Union instrument for overcoming these disparities at the European level. Thanks to a strong financial leverage they may, when properly streamlined, boost innovative undertakings regionally. This is especially so in the 12 Member States incorporated to the European Union in the last two enlargement runs (2004 and 2007). Structural Fund programmes can, and do, play a very important role in securing long-term economic benefits through increased investment in research, innovation and education measures. This is particularly so in Europe's least prosperous regions as experience in Member States such as Ireland and Spain has demonstrated.

EURAB welcomes Commissioner Hübner's expressed desire to see all Member States and regions dedicate a substantial share of their Structural Fund resources to research and innovation. The purpose of this report is to highlight ways in which this might be achieved. As the Aho report³ emphasises the problem of achieving the goal of increasing the resources committed to research and innovation is not one of intent but rather of implementation. As Commissioner Potočnik has recognised⁴, the Structural Funds need to be explored by Member States and universities as possible funding sources developing closer synergies and interaction between research, education and innovation, and to build

² Led by Mr. Esko Aho, the Group was constituted to advise the European Commission and reported in January 2006.

³ Creating an Innovative Europe, January 2006

⁴ Video Speech, Vienna, 14 September 2006

or consolidate research capacities at local and regional level. Much good work is already underway here. We particularly recognise the practical actions being taken through initiatives such as the Regions for Economic Change by DG Regio and the Regions of Knowledge activity by DG Research.

To achieve our collective aims we must increase the resources dedicated to research and innovation measures by Structural Fund Programmes; we must raise awareness of the importance of actions in this area; spread experience and best practice of how to deliver economic benefits from these measures, and we must ensure that Structural Fund actions are firmly embedded within the wider research and innovation ‘eco-system’. We hope this report will assist in this process.

2. Investing for economic growth and jobs

Investment in research, education and innovation – the knowledge triangle - lies at the heart of successful economies and is relevant to all regions in the EU⁵. It is widely accepted that there is a positive relationship between R&D investment, innovation and economic growth. Countries that invest in research and innovation have higher rates of economic growth and higher levels of productivity over the long-run, particularly where this is embedded in a well-functioning innovation system⁶. This enables the creation of more jobs and higher incomes within those economies. This can be the case for both the prosperous and less-prosperous regions of the EU.

The capacity of an economy to transform investments in research, education and innovation into economic growth varies sharply across the EU⁷. The challenge is to ensure that not only are levels of research and innovation increased but that the economic benefits of this increasing activity are realised and that the innovation system itself operates effectively and efficiently.

There is a clear role here for the EU’s Structural Fund programmes. Support for strengthening the capacity of a region for research and innovation will not only provide economic benefits to the region concerned, but can also help to deliver the convergence objectives of the EU. The Structural Funds are first and foremost an instrument for cohesion policy, and its support for research and innovation investments should be seen in this light.

⁵ EURAB (2005) Stimulating the Regional Potential for Research and Innovation 05.041

⁶ OECD (2001) R&D and productivity growth: Panel data analysis of 16 OECD countries; Grossman and Helpman (1994) Endogenous Innovation in the Theory of Growth, in *Journal of Economic Perspectives* 8 p23-44

⁷ Bilbao-Osorio B and Rodriguez-Pose A (2004) From R&D to Innovation and Economic Growth in the EU. *Growth and Change* Vol 35 (4)

3. Supporting research and innovation through the Structural Funds

The Structural Funds already make a very positive contribution to research and innovation in the EU. It is estimated that between 5.5%⁸ and 7.4%⁹ of all Structural Fund expenditures in the period 2000-2006 were invested in research and innovation activity. This equates to at least €10.2 billion, with three-quarters of this investment occurring in the Objective 1 regions of the EU. In some regions the Structural Funds makes a significant contribution to overall levels of research and innovation, accounting for between 5% and 18% of gross expenditure on R&D in Objective 1 countries¹⁰, highlighting their importance to meeting the EU's overall objectives for research, innovation and economic growth.

There are five areas where the Structural Funds – both the ERDF and the ESF - can, and do, contribute to boosting the economic benefits of research and innovation activity in Europe's regions (Box 1). Above all, the Structural Funds can contribute to lasting behavioural changes through introducing novel ideas and new ways of working.

Box 1: Areas where Structural Funds can activate research and innovation activity

- Stimulating the regional capacity for undertaking research, through investments in research and innovation infrastructures and the education and skills of the workforce and businesses, including promoting the mobility of researchers
- Commercialisation of research outputs and research-led innovation, including helping firms access knowledge generated elsewhere
- Support for research programmes, including increasing the funds available for research
- Improving governance arrangements for research and innovation, including support for the development of regional innovation strategies
- Developing and international dimension to a region's activities, through supporting access to trans-national research and innovation programmes, such as the RTD Framework Programmes.

There is a large variety of actions in support of research and innovation carried out through Structural Fund programmes; ranging from direct infrastructure investments, through training of the personnel, enterprises support in preferred technological areas to co-financing particular regional research and innovation strategies and undertakings. Over time, these actions can result in an increase in overall levels of research activity, in both the private and public sectors; the development of new high-growth companies; higher levels of innovation in the local economy; a more highly-skilled workforce; a region that is more attractive to Foreign Direct Investment, and ultimately a greater number of higher value jobs.

⁸ Technopolis (2006) Strategic Evaluation on Innovation and the knowledge economy in relation to the Structural and Cohesion Funds, for the programming period 2007-2013

⁹ CEC(2005) Cohesion Policy in Support of growth and Jobs: Community Strategic Guidelines 2007-13 COM (2005) 299, reported in Technopolis (2006) Op CIT

¹⁰ Technopolis (2006) op cit

In the past, levels of research and innovation investments through the Structural Funds have varied widely across the EU. In response to this, we call upon decision-takers to place investment in research, innovation and education at the heart of Structural Fund programmes, in order to lay the foundations of economic growth and promote cohesion in the EU. The value of research-driven development in securing the future economic success and well-being of the EU has been recognised in the Lisbon agenda¹¹ and remains a cornerstone of current policy thinking. In pursuit of this aim EURAB welcomes the emphasis placed on integrating research, innovation and economic change through promoting research-driven clusters.

The value of such an approach has been demonstrated in France through the Pôle de Compétitivité initiative, and is now recognised in other Member States, such as the Czech Republic and in Greece - which is promoting Regional Innovation Poles and Clusters as part of its proposed Structural Fund programmes 2007-13. Strengthening the emphasis on research and innovation at a national and regional level contributes to promoting industrial change, stimulating a more competitive economy and improvements in the quality of the available labour supply, all substantive objectives of Structural Fund programmes.

4. Investing in research and innovation through the Structural Funds

All regions can benefit from investment in research and innovation, but not all regions are equally prepared for such investment. This is the paradox facing the European Union. The Structural Funds can go a long way to overcoming this paradox, not just through the important financial contribution they make in the least prosperous regions of the EU but also through their support for a strategic, and multi-annual, approach in which to develop regional capacity for research and innovation as part of a wider, integrated, development framework. In the best cases this will also extend to engaging with other regional, national and European policy initiatives.

Evidence suggests that the variation recorded in the amounts dedicated to research and innovation through Structural Fund programmes is matched by an equal variation in terms of progress in absorbing these funds¹², although overall, absorption of research and innovation funds is better than average. The areas for action have been succinctly put elsewhere¹³. Rather than repeat these themes we focus on how to successfully ensure that the Structural Funds continue, and increase, their support for research and innovation on the ground. Our findings are structured around two levels: at the European and national scale and at the level of the regional programmes. We recognise that there may be some overlap between these two divisions and encourage a full consideration of the merit of each point in the context of each Member State.

¹¹ CEC (2005) Working together for Growth and Jobs: A new start for the Lisbon Strategy COM (2004) 24

¹² IQ-NET (2004) Cohesion Policy Funding for Innovation and the Knowledge Economy: Thematic Paper 15(2)

¹³ CEC (2006) Commission Staff Working Document SEC (2006) 1432

4.1 Actions at a European and national scale

Member States and the European Commission, working together, set the context in which decisions on the content of Structural Fund programmes are set. Whilst it is for national, and in many cases regional, decision-takers to determine the relative importance attached to research and innovation activities in Structural Fund programmes, there are a number of actions that can be taken at a higher-level to seek to influence the decisions taken. We encourage the European Commission and the Member States to consider how these might be adopted in seeking to increase the proportion of Structural Fund programme activities mobilised in support of research and innovation.

Raise the profile and understanding of research-led innovation practices: Raising the profile and understanding of research-led innovation practices is a key challenge in delivering on the ambition of dedicating a substantial share of Structural Fund resources to research and innovation. The operational implementation of measures supporting research and innovation tend to be dominated by Government Departments that are responsible for economy or industry and trade, with less knowledge of research and innovation matters. In contrast where these measures are the responsibility of ministries for education or research there is often a lack of awareness of the economic development dimension. Raising the knowledge of responsible parties as to the means by which we can effectively deliver research-led economic growth is a crucial challenge. Persuasion is a powerful actor and the evidence of the importance of raising awareness can be seen in the change of emphasis between the past programming period and the next, as well as in specific cases such as occurred in Ireland. The emphasis of the Lisbon agenda, and the communications surrounding this, has helped to shape the content of many regional programmes. We welcome the opportunities offered by networks such as DG Research's Regions of Knowledge and DG Regio's Regions for Economic Change initiative in this regard.

Ensure that appropriate incentives are available: Ensuring that appropriate incentives are available to change the behaviour of programme-managers, decision-takers, researchers and potential innovators is crucial to increasing the proportion of activity dedicated to research and innovation through the Structural Funds. This is particularly the case owing to the longer-term investment horizon of research and innovation investments and the fact that such investments can appear to have higher levels of risk. Programme authorities and project-leaders require positive incentives to encourage them to invest in longer-term research and innovation compared other projects which might appear to have lower levels of risk and a shorter-period of return, even though the eventual return might be lower. Incentives that could be considered include:

- the use of differential grant rates favouring investments in research and innovation projects
- the establishment of awards for regions that demonstrate 'best in class' investment in research and innovation through the Structural Funds

Reduce the administrative burden: Complex administration and management structures, coupled with uncertainty over future administrative arrangements, have been found to be

particularly problematic for the delivery of research and innovation activities through Structural Fund programmes¹⁴. If we wish to promote the development of research and innovation projects then administration and compliance costs need to be kept as low as possible, with due regard for national and European requirements. As important, is ensuring that rules and regulations are not misinterpreted, owing to misunderstandings, to unnecessarily restrict levels of research and innovation activity. Decision-takers should be assisted in thinking ‘how to’ do things rather than fear potential barriers.

Share the lessons of what works, and what doesn’t: Learning and sharing knowledge of good practice can further assist in strengthening the proportion of activity committed to research and innovation through the Structural Funds. The value of practical demonstration projects and preparatory actions in encouraging a greater level of investment in research and innovation through Structural Fund programmes, has been demonstrated over time. The role of new and strengthened initiatives, such as those supported through the Competitiveness and Innovation Framework Programme, the Regions of Knowledge Action and the Regions for Economic Change initiative, as demonstration projects should be encouraged. These form a ‘bridge’ to the mainstream Structural Fund programmes and should be fully considered in developing Structural Fund actions in this area.

Evaluate the results of our actions: There are also important lessons to be learnt from an evaluation of existing actions. Current evaluations have not sufficiently developed an appraisal of the effectiveness of research and innovation measures in the programming period 2000-06¹⁵, a matter that is particularly important in Objective 1 regions. We emphasise the importance of ensuring that the role of research and innovation activities in stimulating economic development forms part of any future ex-post evaluation activity of the Structural Funds and is fully incorporated in mid-term evaluation activities. Regular evaluation can also raise the profile of research and innovation activities in the Structural Funds and encourage greater attention to this by regional and national decision-makers.

Agree a minimum threshold for investment in research and innovation: The need to increase the proportion of funds dedicated to research and innovation through the Structural Funds is widely recognised^{16,17}. The Aho¹⁸ report argues that all parties should agree a voluntary minimum level in the order of 20%, whilst in May 2004, EURAB argued that an ambitious threshold should be set at 30%¹⁹. The value of earmarking a proportion of resources to activities in support of the Lisbon agenda, including research and innovation, has been established in the current programming period for Structural Fund programmes for the period 2007-13 outside of the 12 Member States who joined the EU after 2004. Understanding other pressing modernisation needs in this group of MS, such as e.g. transportation infrastructure, at least 10% of the resources should be directly

¹⁴ IQ-NET (2004) Op Cit

¹⁵ Technopolis (2006) Op Cit

¹⁶ CEC (2006) Annual Report on the Lisbon National Reform Programme

¹⁷ President of the European Commission Press Conference 25.01.2006

¹⁸ Creating an Innovative Europe, January 2006

¹⁹ EURAB (2004) Structural Funds and the Research Component 04.037

invested in the REI – the knowledge triangle. It is also important that higher targets for the proportion of regional Structural Fund programmes to be committed to research and innovation are set as a common threshold across the EU in the longer perspective. This will be particularly relevant for any future programme negotiations and give all regions the opportunity to develop the capacity to effectively absorb an increase in the funds available.

Exploit new financial instruments fully: For the present we advise that full advantage is taken of the new funding instruments available from the European Investment Bank to support investment in research and innovation. This could include advice on how practitioners might be encouraged to take-up these new financial instruments - such as the Risk Sharing Finance Facility (RSFF) and Joint European Resources for Micro to Medium Enterprises (Jeremie) – through support from the Structural Funds. As these are new areas of activity it is important that practitioners are assisted in finding novel solutions to using Structural Fund resources to assist in unlocking available resources, particularly in the least-prosperous regions of the EU. Without such support and advice there is the possibility that these valuable instruments will not fulfil their potential to assist in delivering the Cohesion objectives of the EU.

Make use of negotiating procedures: The Commission Services have an opportunity to influence the content of individual Structural Fund programmes in their negotiation of these with Member States. Whilst recognizing the limitations under which the Commission Services operate in this regard it is important that they take this opportunity to emphasise the importance of research and innovation in delivering economic growth and employment in all regions of the EU.

4.2 Actions at a regional level

At a regional level there exist strategic and practical barriers to overcome in seeking to increase the proportion of Structural Funds programmes committed to research and innovation activities. This applies both to the allocation of funds in Operational Programming documents and to the subsequent commitment of these funds. Recent work commissioned by DG Regio²⁰ has identified four main bottlenecks to the implementation of Structural Fund RTDI measures:

- An administrative rather than strategic management of research and innovation measures, leading to a lack of synergies with other initiatives
- Lack of expertise at national and regional levels in managing research and innovation measures
- A continuing dominance of supply-side measures with poor linkages to regional innovation systems and
- Limited interest for many ‘softer’ ‘demand-side’ measures aimed directly at enterprises

²⁰ Technopolis 2006 Strategic Evaluation on Innovation and the knowledge economy in relation to the Structural and Cohesion Funds, for the programming period 2007-2013

To this we would add:

- A risk averse attitude which limits the adoption of research and innovation activities

We also wish to highlight the following examples of positive experience which deserves to be more widely adopted in seeking to promote a greater focus on research and innovation through the Structural Funds:

- The value of policy coordination and good governance structures
- The value of taking a focused approach to delivering research and innovation actions
- The value of raising awareness of the role of research and innovation in stimulating economic growth, and the types of actions that can enhance this
- The value responding to the specific regional context and building on past experience

In the light of this experience we offer the following good practice points as positive mechanisms for strengthening the proportion of Structural Funds dedicated to research and innovation in individual programmes.

The benefits of taking a strategic approach: Structural Fund programmes that adopt a strategic approach to the management of research and innovation measures tend to secure economic benefits more effectively. In contrast an administrative approach has been found to lead to an under-provision of research and innovation actions. The mechanistic application of blunt, and inappropriate, selection criteria can further exacerbate this trend. Building and implementing a strategic approach to regional development that fully embraces the potential offered through research, innovation and education should be central to all Structural Fund programmes.

Coordinating different policy approaches: The Structural Funds are just one, albeit often significant, input seeking to stimulate levels of research and innovation. It is essential that the actions taken through Structural Fund programmes are aligned with other European, national and regional instruments active in this area. A coordinated approach not only encourages a greater take-up of funds but also improves the efficiency with which the innovation system as a whole operates. The effectiveness of research and innovation activity promoted through the Structural Funds is further strengthened where it is embedded within the surrounding research and innovation ‘eco-system’ and forms part of a more comprehensive approach to activating the potential for research and innovation in each region. In the best cases the Regional Innovation Strategies, initially supported through the Innovative Actions of the Structural Funds, provide a very good example of the success of such an approach.

Access to appropriate skills, expertise and capacity: A crucial factor in implementing research and innovation activities in the Structural Funds is access to the capacity to design and implement increasingly sophisticated policy approaches. Equally, programme managers must have access to personnel with the skills to appraise applications for funding in this area. There appears to be limited availability of the requisite skills –

crossing the research, innovation and economic development divides - at both national and regional levels. It is essential that mechanisms are developed to assist concerned individuals develop the skills and expertise to design and implement effective interventions in this area. Capacity constraints may become more evident where there is an increasing regionalisation of research and innovation policy, as available skills are spread more thinly.

Stimulating the demand for research and innovation as well as supply: Traditionally many Structural Fund programmes, like other interventions in this area, have sought to stimulate the supply of services for research and innovation. Whilst this has its place the effectiveness of such actions will be increased where demand for these services is also strengthened. The value of developing a research centre in an area that is unattractive to researchers, and which has few linkages to those that might commercialise – directly or indirectly – the knowledge generated in the Centre will be much lower than one that is part of a functioning regional innovation system. Structural Fund programmes can play a valuable role in supporting demand-side actions, working with firms and others, to stimulate a stronger culture of innovation. These can be overlooked by programmes that focus on stimulating levels of research and innovation.

Taking a focused approach: Experience suggests that programmes that take a more focused approach to delivering research and innovation activities tend to have a stronger impact. Evidence from the 2000-06 programming period demonstrates that programmes that concentrated research and innovation support in a specific priority or measure tended to be more effective in stimulating research and innovation project activity than those that spread this support across a series of measures or priorities. In its reflections on the outcomes of the mid-term evaluations the Commission has recognised the difficulties experienced in implementing cross-cutting measures in respect of RTDI activities in a meaningful way²¹.

Focusing support on a limited number of key projects or themes can also be an effective means of realising the economic benefits of research and innovation activities. In the Norra region of Sweden for example the Objective 2 programme has partly focused on stimulating the development of Liquid Crystal Display (LCD) expertise, through the development of an ‘LCD Centre’ which acts as a hub for the emergent Crystal Valley. Targeting may be on the basis of identified sectors or clusters or on specific themes, such as proof of concept funds or collaborative research. However, there is a risk that this may limit the pool of eligible firms so care must be taken to ensure that the demand for the action is fully understood. Targeted interventions promoting a critical mass of projects can also help to raise awareness of the value of research and innovation activity within a programme area.

The identification of flagship projects: The identification of a small number of strategic projects – preferably in the Operational Programme itself - can also be a valuable means for raising both the intensity and the effectiveness of research and innovation activities in

²¹ Commission overview of the mid-term evaluations’ results on RTDI (2000-06) reported in IQ-NET (2006) Op Cit

Structural Fund programmes. These provide a basis around which other projects can develop and from which connections can be made. In this respect they can be seen as ‘foundation stones’ underpinning integrated strategies for developing research and innovation capacity in a region. Whilst these might be physical projects, such as the proposed EIT Plus project planned in Wroclaw, Poland,²² aiming at a streamlined investment of more than 1 bln Euro (half from the Structural Funds) for the period of 2007-13 in the knowledge triangle, they might also be ‘softer’, but high profile, programmes of activity.

Increasing knowledge and understanding: As at national levels, it is crucial that decision-takers at the regional level are fully aware of the potential that research and innovation activities offer – to all regions – for economic growth. Experience from the Regional Innovation Strategies supported by DG Regio suggests that only where high-level, and cross-party, political support is engaged will such measures be fully implemented in regional strategies. Equally, take-up of such measures will be improved where there is strong awareness of the opportunities, and advantages to be gained, amongst businesses, universities, research centres and other relevant institutions. High profile actions can help to raise levels of awareness and there is an important role to be played here by the Communication and Publication Strategy that is an integral part of every Structural Fund programme. Calls for tender and the launching of competitions for research and innovation actions can all be valuable in raising levels of awareness within the region, not just for the selection of projects.

In raising awareness of potential actions, and mobilising support for and understanding of the potential of research and innovation activities to stimulate economic growth encouraging the use of pilot actions can provide a valuable starting point from which to build. In South Sweden for example, the region’s Structural Fund programme will now put into practice actions based on the Regional Innovation Strategy developed, with the help of the Structural Funds, in 1999. The role of initiatives such as the Innovative Actions, Regions of Knowledge Pilot Action and its successor have all stimulated useful pilot initiatives, many of which are now being further developed through mainstream Structural Fund programmes. The programme authorities should be able to identify how their proposals build on pilot actions or other preparatory actions, such as Regional Innovation Strategies, undertaken in their regions through EU funding, or demonstrate why they do not. For the future, actions undertaken in the Capacities strand of the 7th Framework Programme will form a critical bridge to the Structural Funds and such bridging activities should be widely encouraged.

Exchanging experience: Regional programmes can also benefit from a wider knowledge of the types of projects that have been successfully used elsewhere to realise economic benefits from research and innovation activities. This extends from investment in research and innovation infrastructures, through investment in the talent available to a region, to the commercialisation of the products and knowledge generated from supported research programmes. It also includes actions to boost the governance

²² <http://www.eitplus.wroclaw.pl> EIT Plus web pages provides detailed information on the project and its implementation

dimension for research and innovation in a region, particularly the use of foresight exercises and the development of regional innovation strategies. Crucially, for these to have a lasting benefit, future actions emanating from such exercises must be capable of support through Structural Fund programmes. Finally, raising awareness of how the Structural Funds can assist in drawing new knowledge into a region by helping firms and researchers to engage with international partners, and potential customers and suppliers, is vital to the long-term economic growth of that region. Mobilising the private-sector is crucial in securing strong economic benefits and the Structural Funds plays an important role in achieving this. There is of course no ready-made innovation strategy and the precise mix of actions will depend on the region concerned. This is why all research and innovation actions should clearly be set in a strong strategic context.

Stimulating absorptive capacity: In seeking to promote research and innovation through the Structural Funds we recognise that there are some constraints on what can be achieved. Currently, it is argued that not all regions are equally able to absorb a significant increase in the levels of funding dedicated to research and innovation. In those regions that cannot, it is imperative that efforts are made to move towards a situation where sufficient absorptive capacity is established. Failure to do so will severely hinder the ability to meet the Lisbon targets and will compromise the EU's ability to achieve its cohesion goals. It needs to be understood that investment in research and innovation can often lead to productivity gains rather than direct employment gains, with a later indirect impact on levels of employment in the firm and in the wider economy.

5. Conclusions

We have established that the Structural Funds can, and do make an important contribution to research and innovation activity in the regions of the EU. This is the case for both the ERDF and the ESF. They assist in:

- Building the capacity of regions to engage in research and innovation through infrastructure investments and investment in talent
- Increasing the level of research activity within a region through supporting programmes of research
- Promoting the economic benefits of research activity, through the commercialisation of research products and knowledge and stimulating levels of innovation amongst firms
- Promoting an improved efficiency of the research and innovation system, through better governance arrangements and strategy building
- Stimulating access to wider knowledge and experience, through making international and transnational connections.

We recognise that a valuable proportion of the Structural Funds are already dedicated to stimulating research and innovation in the EU. However, we believe that more can still be done in order to realise the common aims of the Commissioner for Regional Policy and Member States to dedicate a substantial share of the Structural Funds to research and

innovation. We call upon the European Commission, the Member States and regional authorities to seek to deliver this objective and make the following recommendations as a contribution to that goal.